

Janet Napolitano, Governor Stephen A. Owens, ADEQ Director



**VERY UNHEALTHY (201-300)** 

**UNHEALTHY (151-200)** 

**UNHEALTHY FOR SENSITIVE GROUPS (101-150)** 

**MODERATE (51-100)** 

GOOD (0-50)

For more information visit: <a href="http://www.epa.gov/airnow/aqibroch">http://www.epa.gov/airnow/aqibroch</a>

#### NEW!!! CLICK HERE FOR UPDATED 2006 OZONE SEASON STATS NEW!!!

### AIR QUALITY FORECAST FOR MONDAY, SEPTEMBER 25, 2006

This report is updated by 1:00 p.m. Sunday thru Friday and is valid for areas within and bordering Maricopa County in Arizona

FORECAST	YESTERDAY	TODAY	TOMORROW	EXTENDED
<u>DATE</u>	SAT 09/23/2006	SUN 09/24/2006	MON 09/25/2006	TUE 09/26/2006
NOTICES (*SEE BELOW FOR DETAILS)	NONE	NONE	NONE	NONE
AIR POLLUTANT	Highest AQI Reading/Site (Preliminary data only)			
03*	49	44	51	54
	NORTH PHOENIX	GOOD	MODERATE	MODERATE
CO*	17	16	15	16
	WEST INDIAN SCHOOL	GOOD	GOOD	GOOD
PM-10*	49	48	53	58
	WEST 43 <sup>rd</sup>	GOOD	MODERATE	MODERATE
PM-2.5*	51	31	37	47
	PHOENIX SUPERSITE	GOOD	GOOD	GOOD

<sup>\*</sup> O3 = Ozone CO = Carbon Monoxide PM-10 = Particles 10 microns & smaller PM-2.5 = Particles smaller than 2.5 microns

<sup>\*&</sup>quot;Ozone Health Watch" means that the highest concentration of OZONE may approach the federal health standard.

<sup>&</sup>quot;PM-10 or PM-2.5 Health Watch" means that the highest concentration of PM-10 or PM-2.5 may approach the federal health standard. "High Pollution Advisory" means that the highest concentration of OZONE, PM-10, or PM-2.5 may exceed the federal health standard. "DUST" means that short periods of high PM-10 concentrations caused by outflow from thunderstorms are possible.

#### Health message for Sunday, Sept. 24: No health impacts are expected.

# <u>Health message for Monday, Sept. 25:</u> Unusually sensitive people should consider limiting prolonged outdoor exertion.

#### **Synopsis and Discussion**

What a perfect weekend weather-wise. Temperatures were bearable, and the air quality was great. High pressure will be strengthening over the western U.S. through next weekend. This means we will see mostly sunny skies with the occasional high cloud passing by. Afternoon temperatures will be around 100-102°F in the deserts, and winds will be mostly light. The extended drying means the Particulate levels could inch up each day, and the lack of weather systems will keep dust and grime accumulating here in the Valley. This, coupled weak inversions related to the cooler morning temperatures, means that the *Valley Brown Cloud* will make a return this week. Still, we don't expect Ozone Particulate levels to climb above the mid "Moderate" range this week. Check back Monday for any changes or further updates. Have a good day! – J.Paul

MONITORING SITE MAPS: STATIC MAP - <a href="http://www.azdeq.gov/environ/air/monitoring/images/map.jpg">http://www.azdeq.gov/environ/air/monitoring/images/map.jpg</a>
INTERACTIVE MAPS - <a href="http://www.maricopa.gov/aq/status/map.aspx">http://www.maricopa.gov/aq/status/map.aspx</a>
<a href="http://www.airnow.gov/">http://www.airnow.gov/</a>



# POLLUTION MONITOR READINGS FOR SATURDAY, SEPTEMBER 23, 2006



## O3 (OZONE)

For maps go to: <a href="http://www.airnow.gov/index.cfm?action=airnow.currentconditions">http://www.airnow.gov/index.cfm?action=airnow.currentconditions</a>

SITE NAME		MAX 8-HR VALUE (PPB)	MAX AQI	AQI COLOR CODE
<b>Apache Junction</b>	(Pinal County)	50	39	
Blue Point		43	34	
Buckeye		47	37	
Casa Grande	(Pinal County)	55	43	
Cave Creek		60	47	
Central Phoenix		54	42	
Dysart		51	40	
Falcon Field		51	40	
Fountain Hills		60	47	
Glendale		55	43	
Humboldt Mounta	ain	54	42	
Maricopa	(Pinal County)	44	34	
North Phoenix		63	49	
Phoenix Supersite		53	41	
Pinal Air Park	(Pinal County)	36	28	
Pinnacle Peak		57	45	
Queen Creek	(Pinal County)	NOT AVBL	NOT AVBL	NOT AVBL
Queen Valley	(Pinal County)	53	41	
Rio Verde		59	46	
South Phoenix		42	33	
South Scottsdale		55	43	
Tempe		59	46	
Tonto Nat'l Mon.	(Gila County)	54	42	
West Chandler		57	45	
West Phoenix		57	45	
Yuma	(Yuma County)	43	34	

#### CO (CARBON MONOXIDE)

SITE NAME	MAX 8-HR VALUE (PPM)	MAX AQI	AQI COLOR CODE
Central Phoenix	0.8	9	
Greenwood	1.0	11	
Phoenix Supersite	0.7	8	
West Indian School	1.5	17	
West Phoenix	0.9	10	

## PM-10 (PARTICLES)

SITE NAME	MAX 24-HR VALUE (ug/m3)	MAX AQI	_ AQI COLOR CODE
Buckeye	42.5	39	
Central Phoenix	39.3	36	
Durango	48.0	44	
Greenwood	41.8	38	
Higley	40.1	37	
Maricopa (Pinal County)	NOT AVBL	NOT AVBL	NOT AVBL
Phoenix Supersite	33.1	30	
Stanfield (Pinal County)	NOT AVBL	NOT AVBL	NOT AVBL
West Forty Third	53.6	49	
West Phoenix	43.4	40	

## PM-2.5 (PARTICLES)

(Some data derived from light-scattering equipment)

For maps go to: <a href="http://www.airnow.gov/">http://www.airnow.gov/</a>

SITE NAME	MAX 24-HR VALUE (ug/m3)	MAX AQI	AQI COLOR CODE
Durango	8.8	29	
Dysart	8.5	28	
Estrella Mountain Park	9.4	31	
Phoenix Supersite	15.6	51	
Vehicle Emissions Lab	10.2	33	
West Phoenix	10.8	35	

#### LOCAL AIR POLLUTANTS IN DETAIL



#### **O3 (OZONE):**

<u>Description</u> – This is a secondary pollutant that is formed by the reaction of other primary pollutants (precursors) such as VOCs (<u>v</u>olatile <u>organic compounds</u>) and NOx (<u>N</u>itrogen <u>Ox</u>ides) in the presence of heat and sunlight.

<u>Sources</u> – VOCs are emitted from motor vehicles, chemical plants, refineries, factories, and other industrial sources. NOx is emitted from motor vehicles, power plants, and other sources of combustion.

<u>Potential health impacts</u> – Exposure to ozone can make people more susceptible to respiratory infection, result in lung inflammation, and aggravate pre-existing respiratory diseases such as asthma. Other effects include decrease in lung function, chest pain, and cough. <u>Unit of measurement</u> – Parts per billion (ppb). <u>Averaging interval</u> – Highest eight-hour period within a 24-hour period (midnight to midnight). <u>Reduction tips</u> – Curtail daytime driving, refuel cars and use gasoline-powered equipment as late in the day as possible.

#### **CO (CARBON MONOXIDE):**

<u>Description</u> – A colorless, odorless, poisonous gas formed when carbon in fuels is not burned completely.

<u>Sources</u> – In cities, as much as 95 percent of all CO emissions emanate from automobile exhaust. Other sources include industrial processes, non-transportation fuel combustion, and natural sources such as wildfires. Peak concentrations occur in colder winter months.

<u>Potential health impacts</u> – Reduces oxygen delivery to the body's organs and tissues. The health threat is most serious for those who suffer from cardiovascular disease.

Unit of measurement – Parts per million (ppm).

<u>Averaging interval</u> – Highest eight-hour period within a 24-hour period (midnight to midnight) <u>Reduction tips</u> – Keep motor vehicle tuned properly and minimize nighttime driving.

#### **PM-10 & PM-2.5 (PARTICLES):**

Description – The term "particulate matter" (PM) includes both solid particles and liquid droplets found in air. Many manmade and natural sources emit PM directly or emit other pollutants that react in the atmosphere to form PM. Particles less than 10 micrometers in diameter tend to pose the greatest health concern because they can be inhaled into and accumulate in the respiratory system. Particles less than 2.5 micrometers in diameter are referred to as "fine" particles and are responsible for many visibility degradations such as the "Valley Brown Cloud" (see <a href="http://www.phoenixvis.net/">http://www.phoenixvis.net/</a>). Particles with diameters between 2.5 and 10 micrometers are referred to as "coarse".

<u>Sources</u> – Fine = All types of combustion (motor vehicles, power plants, wood burning, etc.) and some industrial processes. Coarse = crushing or grinding operations and dust from paved or unpaved roads.

<u>Potential health impacts</u> – PM can increase susceptibility to respiratory infections and can aggravate existing respiratory diseases, such as asthma and chronic bronchitis.

<u>Units of measurement</u> – Micrograms per cubic meter (ug/m3)

Averaging interval – 24 hours (midnight to midnight).

Reduction tips – Stabilize loose soils, slow down on dirt roads, carpool, and use public transit.

{Updated 03/28/2005}